

ADVANCED ANALYSIS DIVISION NOTE
AADN 89-1

DOD ACQUISITION REGULATORY STREAMLINING:
AN INTERACTIVE RELATIONAL
DATA BASE APPROACH TO
DEFENSE ENTERPRISE PROGRAM (DEP) ANALYSIS

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January 1989

By
Edward C. Robinson

Approved by
Neal Kochman, Division Manager

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DOD Acquisition Regulatory Streamlining: An Interactive Relational Data Base Approach to Defense Enterprise Program (DEP) Analysis

PREFACE

This ANSER Division Note documents a unique methodology used by the Air Force, AFSC, ANSER study team in support of the Air Force review of acquisition regulatory requirements applicable to the Air Force Defense Enterprise Programs. The paper has been invited for publication in the March-April 1989 issue of the Defense Systems Management College (DSMC) bimonthly journal, Program Manager. It has also been approved for presentation at the Annual Symposium of the Military Operations Research Society (MORS) at Fort Leavenworth, Kansas, on 6-8 June 1989, and subsequent publication in the MORS Proceedings.

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ABSTRACT

Congress recently created Defense Enterprise Programs (DEPs) with the objectives of streamlining the acquisition management reporting chain and providing regulatory relief for selected acquisition programs. Relief included all regulations, policy, directives, or administrative rules or guidelines relating to the acquisition activities of the DOD, other than the Federal Acquisition Regulation (FAR) and the Department of Defense Supplement to the FAR (DFAR). Exceptions to this regulatory relief are to be specified by the Service Acquisition Executives (SAEs) with the approval of the Defense Acquisition Executive (DAE).

The DAE implemented the legislation by initiating a memo to the SAEs requesting that the Services clearly identify those regulations, directives, guidelines, and policies that will apply and will not apply to the DEPs. The Air Force Acquisition Executive (AFAE) chartered a study team consisting of representatives from the Air Staff, AFSC, and ANSER to facilitate this determination with the assistance and cooperation of the DEPs. The study team planned interview visits to the DEP offices to gather information on regulatory guidance to apply to these programs.

Concurrently, ANSER developed an automated, interactive, relational data base methodology to facilitate real-time identification, review, analysis, and categorization of the large number of regulatory documents while conducting on-site paperless interviews at SPO locations. The methodology includes using a laptop computer/printer and a projector to display and record interviewee real-time responses with concurrent data base search and random access capability to view selected document information and document inter-

relationships back to the regulatory source. It also includes various report formats to permit real-time automated outbrief and report generation at field location and subsequent research and analysis of interview data. Analysis was facilitated by using an automated FAR/DFAR search capability with an Issue Book approach to record FAR/DFAR search strings, analysis, recommendations, coordination, and decisions.

The AFAE recorded his decisions in a decision memo to the Air Force and an action memo to the DAE. Attachments to these memos were generated by the DEP automated data base. Air Force use of the interactive relational data base concept has facilitated the efficient review and analysis of approximately 2,000 acquisition references and 3,000 interrelationships with minimal resources and in a timely manner.

The acquisition relational data base concept includes provisions for expansion to other Services, levels, and functional areas for various DOD applications. It can assist in further refining and streamlining the regulatory process for current and future programs and has aided in consolidating and streamlining regulatory series of documents.

DOD Acquisition Regulatory Streamlining: An Interactive Relational Data Base Approach to Defense Enterprise Program (DEP) Analysis

by Edward C. Robinson

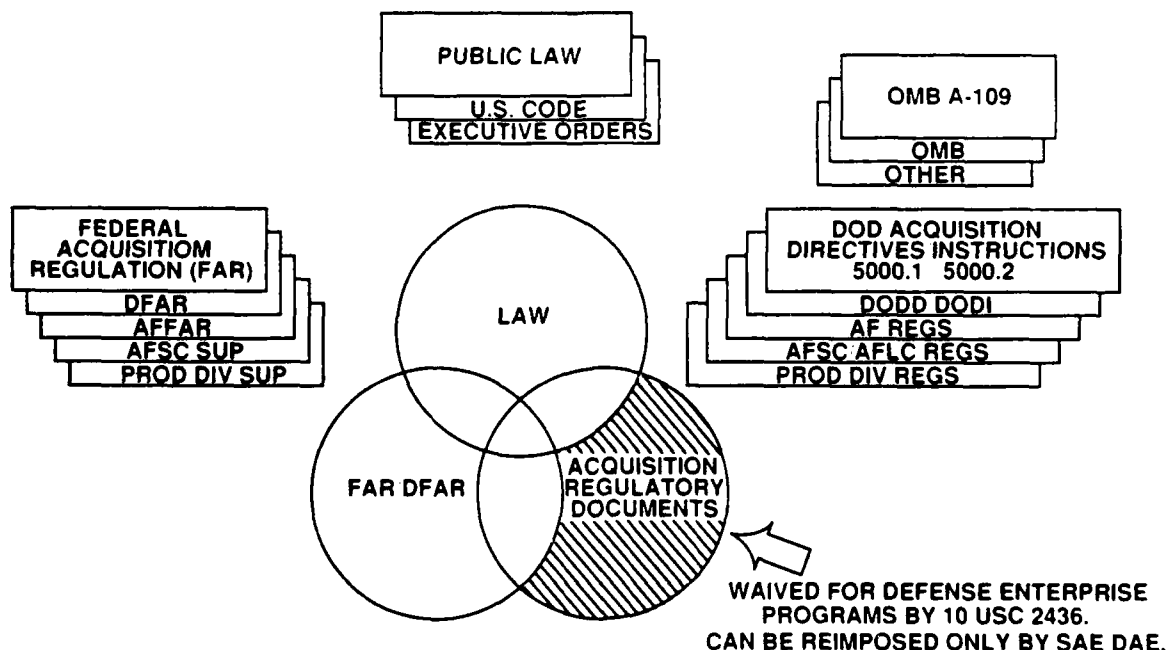
BACKGROUND

Defense Enterprise Programs (DEPs) were recently created by act of Congress with the objectives of (1) streamlining the reporting chain (Program Manager/Director to Program Executive Officer to Service Acquisition Executive to Defense Acquisition Executive), (2) providing regulatory relief for selected major defense acquisition programs, to be called Defense Enterprise Programs, and (3) authorizing milestone-to-milestone funding for selected DEP programs. The legislated regulatory relief includes all regulations, policy, directives, or administrative rules or guidelines relating to the acquisition activities

of the DOD, other than the Federal Acquisition Regulation (FAR) and the Department of Defense Supplement to the FAR (DFAR). Exceptions to this regulatory relief provided by Congress are to be specified by the senior procurement executive of the military department concerned, with the approval of the Under Secretary of Defense for Acquisition.

The Under Secretary of Defense for Acquisition (Defense Acquisition Executive/DAE) implemented the legislation in a Memorandum for Secretaries of the Military Departments dated 27 April 1987,

FIGURE 1
LEGISLATED REGULATORY RELIEF



subject: Defense Enterprise Program and Milestone Authorization. The memorandum specified the Air Force Enterprise Programs as the SRAM II, Medium Launch Vehicle (Delta II), Titan IV, and C-17. It further requested that the Service Acquisition Executives (SAEs) clearly identify those regulations, directives, guidelines, and policies that will and will not apply to these programs.

PURPOSE OF STUDY

In September 1987, the Air Force Acquisition Executive (AFAE) chartered a study team consisting of representatives from the Air Staff, AFSC, and ANSER. The purpose of the study was to facilitate the identification of those regulatory documents that would apply and not apply, as directed by the DAE, with the assistance and cooperation of the Enterprise Program Offices. The study team planned interview visits to the DEP System Program Offices (SPOs) to gather information on regulatory guidance that the Program Offices wished to be retained or to not apply to these programs. Over 200 primary Air Force and DOD acquisition regulatory documents were provided in advance to each Program Office point of contact, together with Discussion and Analysis Workbooks, to facilitate preparation for the study team visit as necessary.

METHODOLOGY

Concurrently, an Air Force acquisition document relational data base was developed by ANSER to facilitate real-time input/output and feedback to the functional interviewees at the DEP SPOs. It was designed for interactive use during interviews using a laptop computer, a computer overhead projector system, and a small inkjet printer. The data base was given four relational components as follows: (1) a SPO interview/response file, (2) a SPO functional area description file, (3) a docu-

ment file, and (4) a document horizontal and vertical relationship file.

The computerized SPO Response Form for each SPO functional area representative outlined the basic information requirements specified by the DAE, i.e., document number identification, applicability (yes or no), FAR/DFAR requirement and references, if known, the relief requested, and the rationale and impact (cost, schedule, performance and other). Remarks space was provided in the form for recording real-time coordination during the SPO Director debrief, the analysis and recommendations, AF/AFSC coordination results, and decisions.

The document/reference files were supplemented as required during the interviews and ultimately numbered over 1,800 references and close to 2,600 reference relationships during Phase I. During Phase II, the number of documents and relationships reached 2,183 and 3,224, respectively. Document relationships could be entered only for those documents that were on hand (primary documents), and from these the document relationships were derived. A document relationship could not be entered in the relationship file without entering the documents or references themselves in the document file. The primary document/reference list currently includes over 300 documents.

The relational nature of the data base permitted "daisy chaining" out of the SPO Response Forms into the document files and document relationship files and back during the on-site interview. This facilitated access to document specifics (number, title, date, level, OPR, POC) and to the related documents up to the potential source of the regulatory requirement and to other related documents. These docu-

FIGURE 2
AIR FORCE ACQUISITION DOCUMENT
INTERACTIVE RELATIONAL DATA BASE

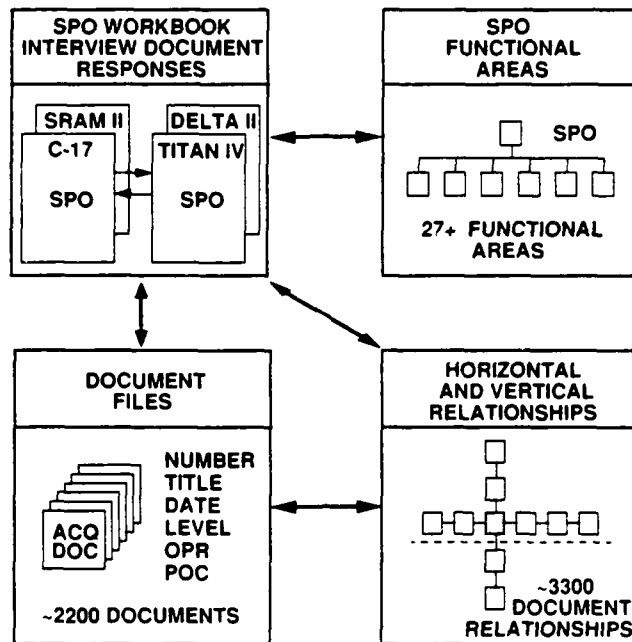
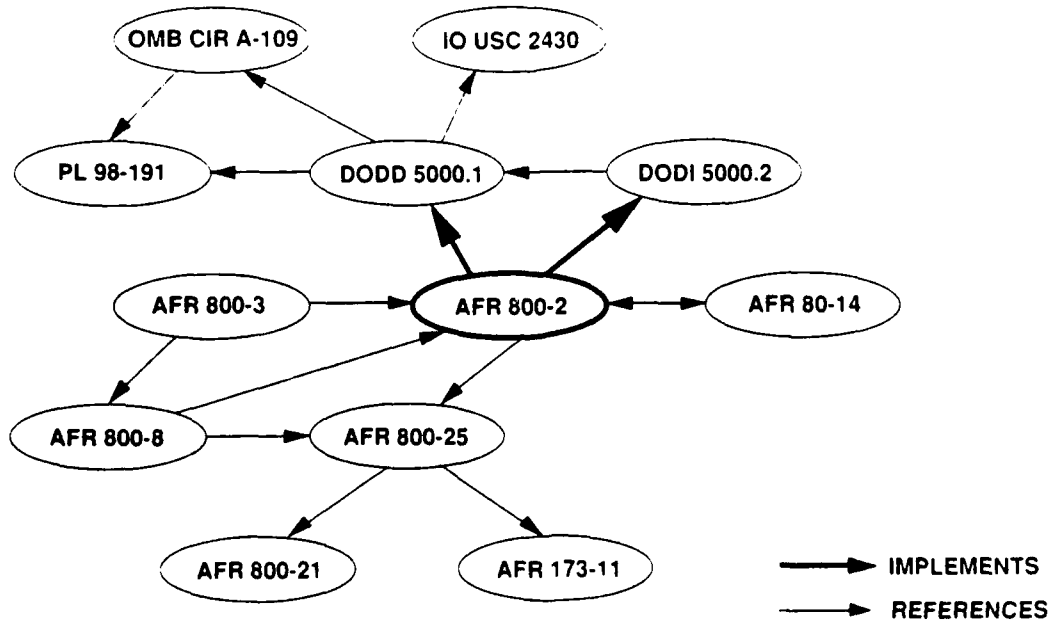


FIGURE 3
ACQUISITION REGULATORY RELATIONSHIPS
ILLUSTRATIVE EXAMPLE



ments/references could then be entered in the SPO Response Forms as applying or not applying, as determined by the SPO interviewee representative. A new response form was generated for each document or reference response, as required. Over 780 SPO responses were completed in phase I. These SPO responses could then be accessed, searched, grouped for any required parameters, compiled, printed, and analyzed, as required.

Phase II incorporated a prescreening process by the study team that added character codes to the document titles in the data base. These codes permitted presorting of the unaddressed documents into various categories for each SPO, including those apparently not relevant or applicable to a particular SPO. This substantially reduced the unaddressed document list for the Phase II analysis.

The analysis was further facilitated by using an Issue Book approach that grouped and categorized related regulatory relief issues.

The Issue Books consisted of sections related to a table of contents, the computerized SPO requests for regulatory relief, printouts of the document relationships, and copies of the key documents, including applicable portions of the law and the FAR/DFAR. Issue-related excerpts from these documents were recorded for analysis. Also included were records of the FAR/DFAR searches where the keyword search strings hit on issue-related words during the automated FAR/DFAR search. Next, the analysis and recommendations were developed and included based upon the document research and the automated FAR/DFAR search. Finally, sections were included for Air Staff review and coordination, as necessary, the AFAE decisions, and the DAE decisions or comments, if required.

Upon completion of the analysis, the Issue Books were provided to the AFAE for review. Copies were distributed throughout the Air Staff, to the Air Force

FIGURE 4
AUTOMATED DATABASE SPO INTERVIEW PROCESS

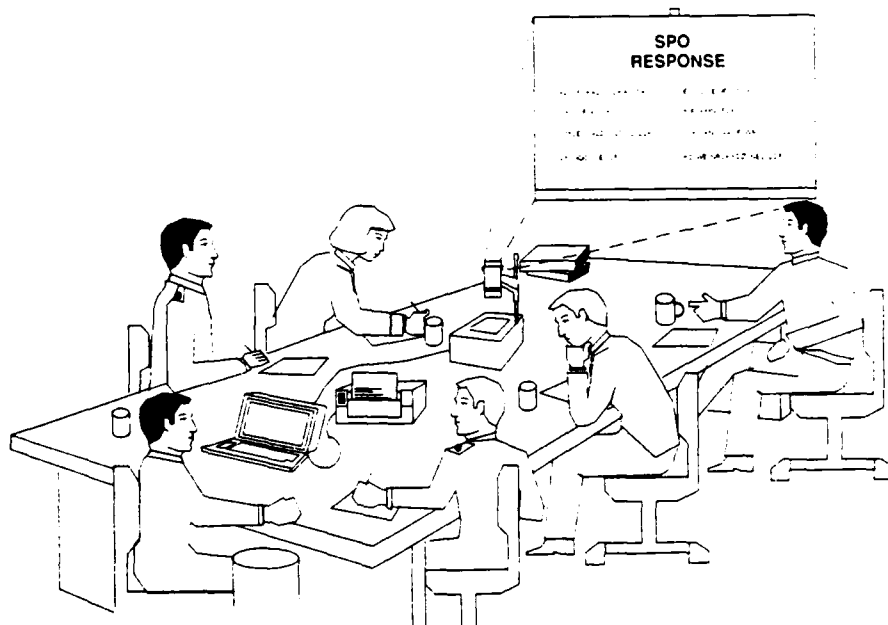
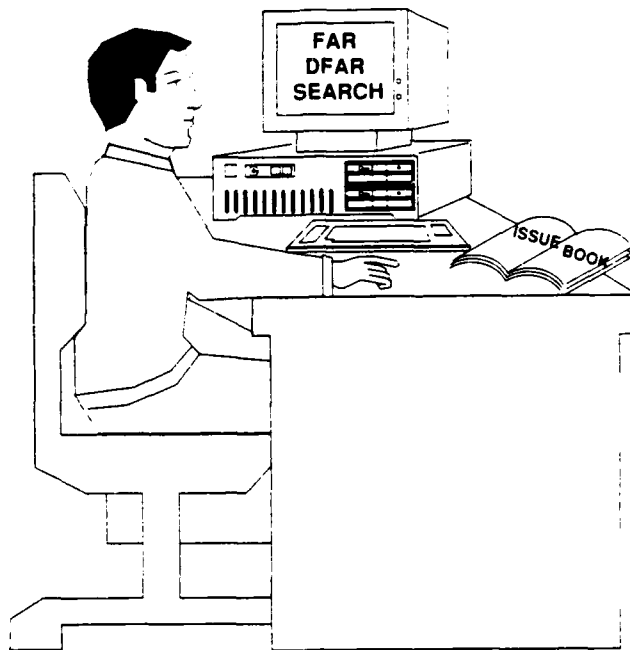


FIGURE 5
AUTOMATED ON-LINE FAR/DFAR SEARCH



Counsel, and to AFSC for coordination and comment. The results of the coordination were incorporated in the data base and in the recommendations, as appropriate. The study and recommendations were then briefed throughout the Air Staff and were presented to the AFAE for decision as to those regulatory requirements that would not apply and those that would continue to apply to the four DEPs.

RESULTS

The AFAE recorded his decisions in a decision memo to the Air Force and an action memo to the DAE. Attachments to these memos were generated by the DEP automated data base. Air Force use of the interactive relational data base concept has facilitated the efficient review and analysis of approximately 2,000 acquisition references and 3,000 interrelationships in a timely manner and with minimal resources. The initial grouping and analysis of Phase I issues was completed in January 1988 for Air Force staffing. Phase II was initiated in August 1988 to address the

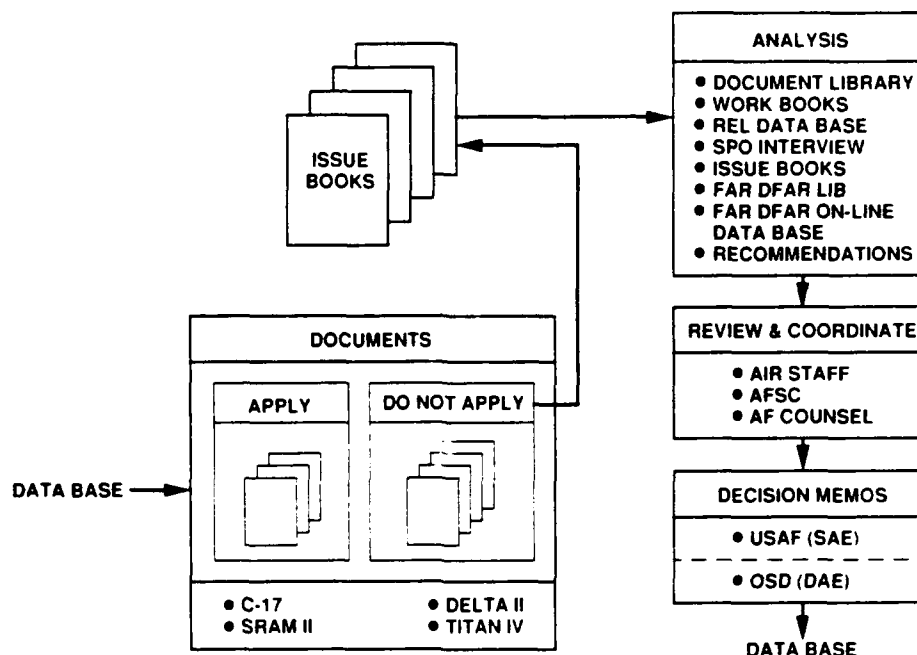
large numbers of unaddressed documents added to the data base during the course of the Phase I interviews, and review and analysis and was completed in November 1988.

The DEP acquisition data base is a dynamic data base that continues to grow. It recently supported the Air Force effort to streamline the Air Force 800 series acquisition regulations.

PUBLISHED DATA BASE

An Air Force Acquisition Document Data Base, Aug 1988, was published in four volumes at the conclusion of Phase I. Volume I provides a keyword search of the titles of all the acquisition references in the data base. It is a unique reference source for locating acquisition documents by alphabetized keywords or word roots. Document/reference relationships are presented in Volumes II and III.

**FIGURE 6
REGULATORY STREAMLINING STUDY
METHODOLOGY**



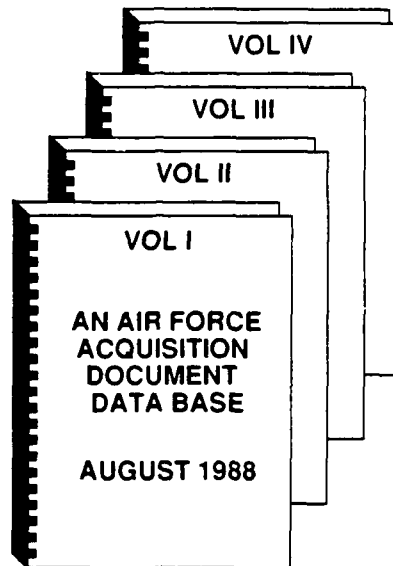
These 2,500 documented relationships are unique and include where many of the document entries are referenced in other documents. Also listed for many of the references are the documents that they implement. If the user is trying to identify or locate acquisition references by subject area, it is suggested that the subject area first be located in Volume I by alphabetical keyword or word root. The documents that they reference can then be located in Volume II, if considered a primary document; and finally, the documents that they are referenced in can be located in Volume III. Alphabetical and numerical listings and listings by organizational level of over 300 primary documents can be found in Volume IV. The DSMC library reports extensive use of the current volumes and the DEP SPOs are finding these volumes helpful in the preparation of requests for proposal (RFPs). Current distribution includes the Air University, the DSMC and the Industrial College of the Armed Forces (ICAF). They may be requested through DTIC channels. These

volumes will be updated subsequent to Phase II.

ONGOING AND FUTURE APPLICATIONS

Although developed as an ANSER in-house tool to support the Air Force Enterprise Program analysis, the data base includes provisions for expansion to other Services, levels, and functional areas for DOD applications, as required. The value of the document data and the unique relationships contained in the current data base are such that it has been made available to the acquisition community. The publication contains a mixture of generic acquisition doctrine, policy, and guidance, as well as system or product division-unique guidance of interest to the current DEPs or their contractors. These volumes may be useful in further refining and streamlining the regulatory process for current and future Air Force and DOD Enterprise Programs

**FIGURE 7
PUBLISHED DATA BASE**



and in consolidating and streamlining additional regulatory series of documents.

The data base will continue to be used in current and ongoing regulatory streamlining activities, including an evaluation phase to determine the benefits and effectiveness of the Phase I and II streamlining efforts. The results will be weighed in the selection of future DEPs and regulatory streamlining efforts. It will support further activities in streamlining acquisition related policy and guidance into the AFR 800 series regulations. Ongoing actions include the investigation of incorporating existing MIL-Standard and MIL-Spec data bases into the acquisition data base for better visibility of the bottom of the regulatory "iceberg."

The data base also has potential application as a paperless, electronic regulation framework to be expanded to include digitized full text capability. This on-line regulatory data base network could then be remotely ac-

cessed and queried and would be capable of printing regulations on demand, thus greatly increasing their accessibility and minimizing publication, printing, and transportation costs and delays. All levels of regulatory guidance could be included with interrelationships, providing a path to the regulatory source, including the FARs and DFARs. One portion of the data base could then serve as the working file for update, revision, and coordination of regulations, by controlled remote access.

Further applications could be found as a data base for access by hotline or bulletin board for the purpose of suggesting streamlining, cost-reduction-type revisions. The analysis of these suggestions could then be handled in a manner similar to the Phase I and II analyses by accessing and searching the FAR/DFAR data base for legislative constraints or opportunities.

VITA

Ed Robinson has been a senior aerospace engineer/defense analyst with ANSER, Arlington, Virginia, since retiring from the Army as a colonel in 1983. Since joining ANSER, he has served as project leader for a variety of studies and analyses related to defense issues of primary importance to Air Force and Army senior management. He is a former Army research, development, and acquisition (RDA) specialist, having served in DOD acquisition-related assignments, from project engineer to Secretary of the Army-chartered program manager, on various Army RDA programs including the AH-1S Cobra attack helicopter, the UH-60 BLACKHAWK helicopter, and the Aircraft Survivability Equipment (ASE) programs.

He served as Research and Development Advisor/Senior Army Advisor to the Ministry of National Defense of the Republic of China; as a Department of the Army Systems Coordinator (DASC) in the Office of the Deputy Chief of Staff for Research, Development, and Acquisition (ODCSRDA); and as Military Assistant for Test and Evaluation of aircraft and artillery systems in the Office of the Secretary of Defense.



Ed received master of science degrees in aerospace engineering and in engineering management from the University of Missouri, Rolla, and his bachelor of science degree in engineering from the U.S. Military Academy. He is a graduate of the Defense Systems Management College, Program Manager's Course and the Executive Course; the Army War College; and the Army Command and General Staff College. He served two combat tours in Vietnam, with the 1st Cavalry Division's 229th Assault Helicopter Battalion and the 11th Combat Aviation Battalion. He is a former master army aviator, dual-rated in both fixed wing and rotary wing single-engine and multiengine aircraft.

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